



Ka-BAND LOW NOISE BLOCK ACLNBS-Ka-Ex-V3

Standard Series

Ed.13

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The **ACLNB-Ka family** of LNBS is designed for the most challenging Ka-band **professional & military** satellite communication systems (ground, SOTP, SOTM, maritime, etc.). Latest technology is applied to obtain the best noise figure, phase noise, gain stability and return losses according to **MIL-STD-188-164C**. The ACLNB-Ka family is a **high reliability** solution designed for **harsh environmental conditions**, with every single production unit **fully tested** in an environmental chamber and delivered with a complete factory acceptance test report.

RECEIVER SPECIFICATIONS

Input frequency 19.2 to 22.2 GHz (see options)
 Input Ka-Band VSWR (50 Ω) < 1.3:1
 Output frequency 950 to 2000 MHz (see options)
 Output L-band VSWR (50 Ω) < 2.0:1
 Spectrum inversion None
 Max. input level without damage 0 dBm

Gain 60 dB min
 Gain flatness ±2.0 dB over whole BW
 Gain stability (24 hours)..... ±0.25 dB @ const. temp.
 Gain variation over temperature ±2.0 dB

Noise figure @ 25 °C ≤ 1.5 dB
 Noise temperature @ 25 °C ≤ 120 K
 Image rejection > 45 dB
 Output P1dB > +10 dBm
 In-band spurious < -60 dBc @ P_{OUT} = 0 dBm

LOCAL OSCILLATOR

Output phase noise (IESS-308/309 – 5 dB)
 100 Hz -65 dBc/Hz
 1 kHz -75 dBc/Hz
 10 kHz -85 dBc/Hz
 100 kHz -95 dBc/Hz

External reference 10 MHz
 External reference level 0 dBm ± 5 dB
 Internal reference stability ±1 ppm (option LN3)

POWER SUPPLY

DC input voltage 9-15 V_{DC}
 Consumption 370 mA

MECHANICAL SPECIFICATIONS

Size (LxWxH) 114 x 58 x 36 mm
 4.5 x 2.3 x 1.4 in
 Weight 350 g
 0.8 lbs
 Finish RAL 9003 (White)

ENVIRONMENTAL SPECIFICATIONS

Storage temperature -40 °C to +85 °C
 Operating temperature -20 °C to +60 °C
 Relative humidity up to 100%
 Operating altitude up to 4500 m

INTERFACES

RX input (Ka-Band) WR42 grooved (PBR 220)
 RX output (L-Band+DC+Ext.Ref.) Type N(F) 50 Ω

OPTIONS

Ka-band input	L-band output	LO freq.	Standard freq. option
19.2 to 20.2 GHz	1000 to 2000 MHz	18.200 GHz	ACLNBS-Ka-E1-V3
20.2 to 21.2 GHz	1000 to 2000 MHz	19.200 GHz	ACLNBS-Ka-E2-V3
20.2 to 21.2 GHz	950 to 1950 MHz	19.250 GHz	ACLNBS-Ka-E22-V3
21.2 to 22.2 GHz	1000 to 2000 MHz	20.200 GHz	ACLNBS-Ka-E60-V3

LN1 RX output connector type SMA(F) 50 Ω
 LN2 Operating temperature -40 °C to +60 °C
 LN3 Internal reference ACLNBSI-Ka-Ex-V3